baiBrowser™ iOS User Guide

for use with the baiMobile 3000MP Bluetooth Reader

for Apple iPhone 3Gs, iPhone 4, 4s, 5 and the iPad 1, 2, 3, 4 and mini

Version 1.5
May 15, 2013

Support

For support relating to baiMobile™ Bluetooth Smart Card Readers:

Biometric Associates, LP
Main Office (410) 252-7210
support@baimobile.com

Field support:
Michael Smith (407) 823-8130 (cell)
msmith@baimobile.com

Before you get started

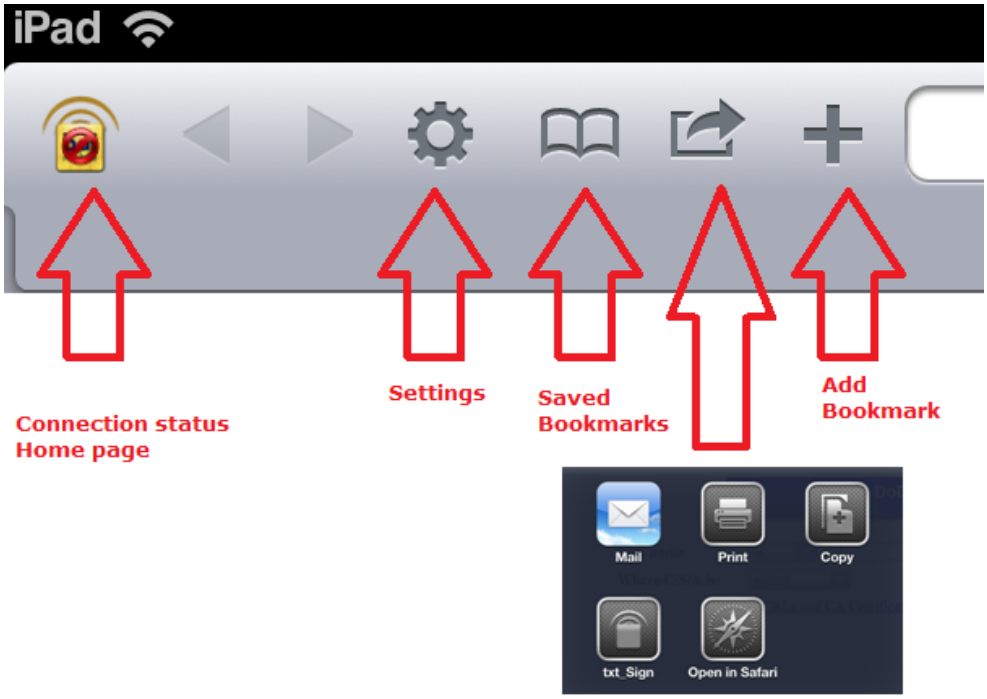
Register your reader by entering the reader serial number in the registration box. Your reader serial number is located on the back of the baiMobile 3000MP Reader. Bluetooth pairing will not be functional unless a registered serial number is entered.

This User's Guide is designed for the Apple iPhone™ 3Gs, 4, 4s and 5 smartphones and the Apple iPad™ 1, 2, 3, 4 and iPad mini tablets with iOS version 4.0 and higher. If you are using another device, the information herein may be different or may not apply. If you have questions, contact your network administrator or email support@baimobile.com.

- baiBrowser Version: 1.0.27, build 1342
- iOS versions tested: 5.0.1 - 6.1.2
- baiMobile 3000MP Bluetooth Reader Firmware version: 2.03.01
- baiMobile BTA001 Bluetooth adapter version: 1.4.4

Review the baiBrowser icons

The **BaiBrowser** has the common iOS icons that display user information. Please review them.



The **BaiBrowser** has an icon that displays the Bluetooth connection status with the baiMobile 3000MP Reader. These icons correspond with the Bluetooth status icons on the back of the baiMobile 3000MP Reader.

3000MP reader is paired and a secure Bluetooth connection is established between the reader and the device.

3000MP reader may or may not be paired, but there is no Bluetooth connection between the reader and the device.

Bluetooth Pairing

Pairing Basics

Before you can use the **baiBrowser** with your baiMobile 3000MP Reader, it must be securely "paired" with the baiMobile BTA001 Bluetooth adapter (attached to your iPhone or iPad.) The Bluetooth pairing process must be initiated by the iOS app and involves exchanging a randomly generated number used by both the Bluetooth adapter and your Reader for secure Bluetooth communications. This and other security measures insure that Bluetooth communications between your Reader and your phone cannot be intercepted by a third party.

The ***baiMobile 3000MP Reader*** utilizes the Secure Simple Pairing Numerical Comparison model, which is standard in most devices that have Bluetooth version 2.1 and higher. During pairing, a six digit number will be displayed on your iPhone screen and on the Reader's LED display. You must compare both numbers and confirm that they match.

Before You Begin

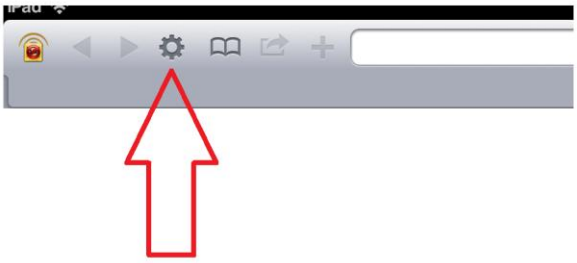
A few things to remember before pairing:

- The pairing is between the Reader and the ***baiMobile*** **Bluetooth adapter** – not between the Reader and the iPhone or iPad. You cannot use the Settings menu on your iPhone or iPad
- The Reader may only be paired with one Bluetooth adapter at any one time.
- The Bluetooth adapter may only be paired with one Reader at any one time.
- Neither the Reader nor the Bluetooth adapter will support multiple or simultaneous pairings.
- Be sure that you have fully charged the iPhone and Reader before starting pairing
- Have both your CAC/PIV card and Bluetooth adapter handy.

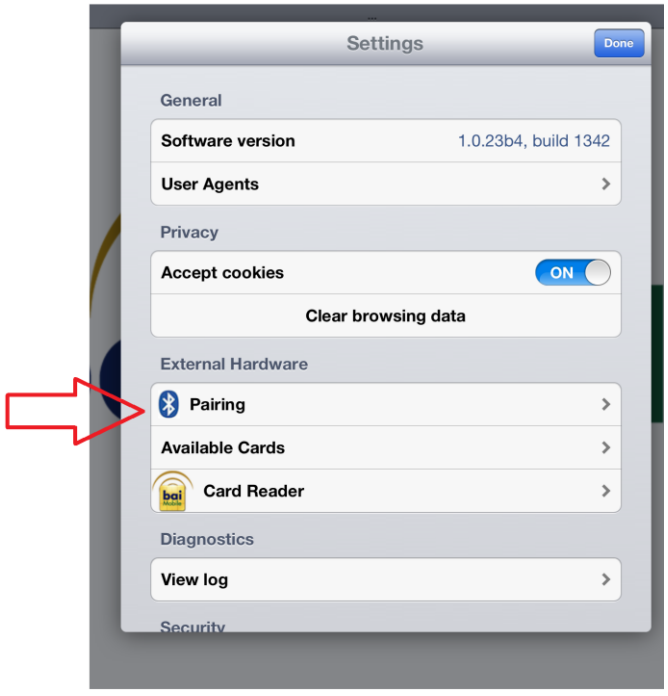
NOTE: You must have an application installed first on your iPhone or iPad that supports the baiMobile 3000MP Reader (such as *BaiBrowser*). The Reader will not pair with an iPhone or iPad otherwise.

Your iPhone w/ baiBrowser Your Reader

1. Open ***BaiBrowser*** and Select ***Settings***

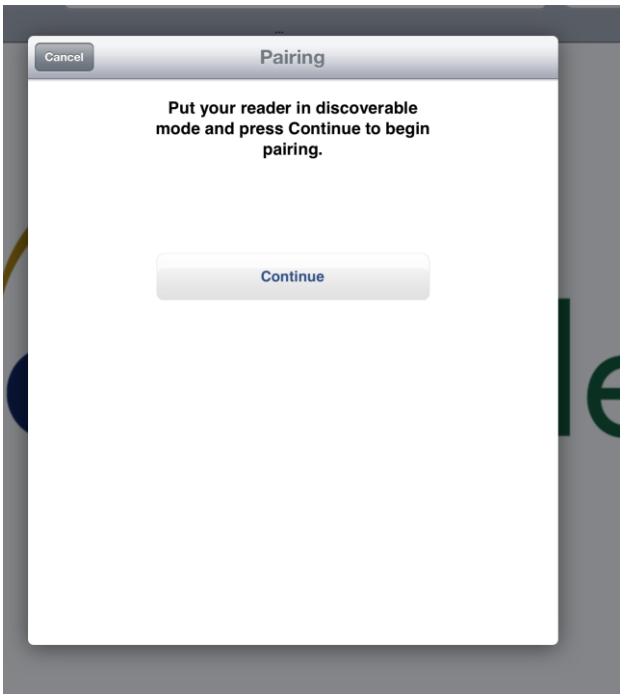


2. Select ***Pairing***



3. Insert the baiMobile Bluetooth adapter**.**

4. The Pairing screen should appear next.
(Do not select ***Continue*** yet).



Your iPhone w/ baiBrowser ***Your Reader***

5. Insert your Smart Card into the Reader as shown.

6. The Reader's LED panel displays ***Booting*** for about 1.7 seconds, then displays ***AuthTime*** for about 1.7 seconds.

7. Next, Reader's LED panel displays the reader Home Screen.

Your iPhone w/ baiBrowser ***Your Reader***

8. On your Reader, press and hold the OK Button as shown (below). The LED display now shows the Reader firmware version for about five (5) seconds, then displays ***Lift Btn.*** Now release the OK Button.

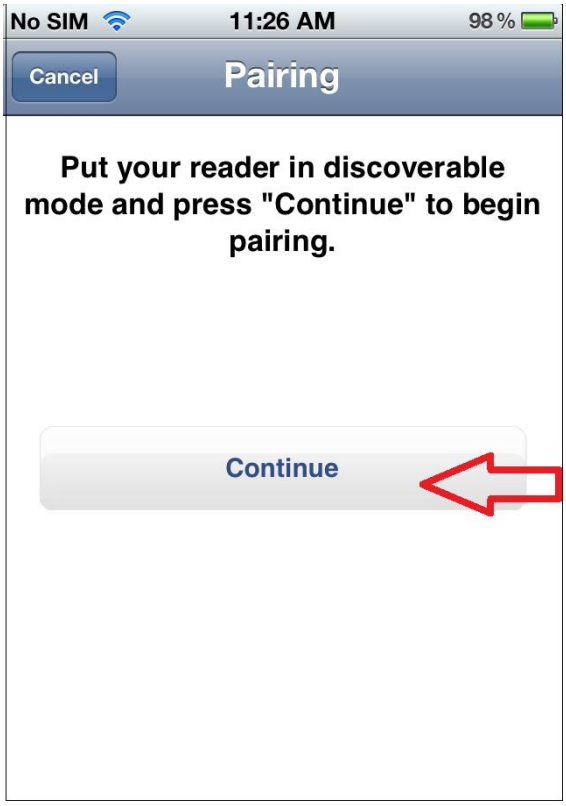
9. The Reader's LED panel will now display ***New Pair?*** for about six (6) seconds.

10. Now press and release the OK Button while the ***NewPair?*** prompt is displayed on the LED panel.

Your iPhone w/ baiBrowser ***Your Reader***

11. The Reader is now discoverable by the iPhone and will remain in this state for about ninety (90) seconds. The LED panel now displays the last four numbers of the Reader's unique Bluetooth address.

12. On your iPhone, press ***Continue***.



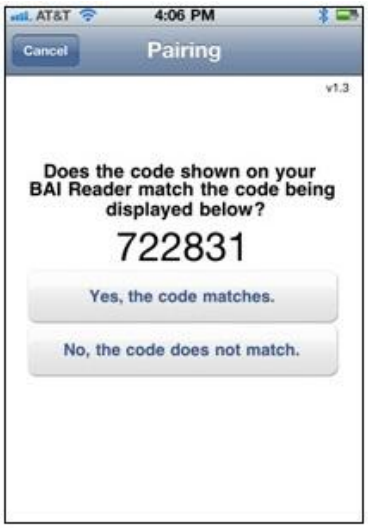
Your iPhone w/ baiBrowser ***Your Reader***

13. Your iPhone will now attempt to discover the Reader. Both your reader and iPhone should be in close proximity to each other. Pairing should be done in a secure environment and not in a public area.

14. Your iPhone will now display a list of compatible Bluetooth devices that it has discovered**.** Compare the Bluetooth device ID# displayed on your iPhone with the device ID# displayed on your Reader. If the ID numbers match, select the Bluetooth Device highlighted.

Your iPhone w/ baiBrowser ***Your Reader***

15. Next, the iPhone will display the randomly generated pairing code. Look at the code now displayed on the Reader's LED display.



16. Compare the first number of the pairing code displayed on the phone. Compare that number (in this example "7") with the number displayed on the Reader's LED panel. If they match, press the OK button.

Your iPhone w/ baiBrowser ***Your Reader***

17. Compare the first number of the pairing code displayed on the phone. Compare that number (in this example "2") with the number displayed on the Reader's LED panel. If they match, press the OK button.

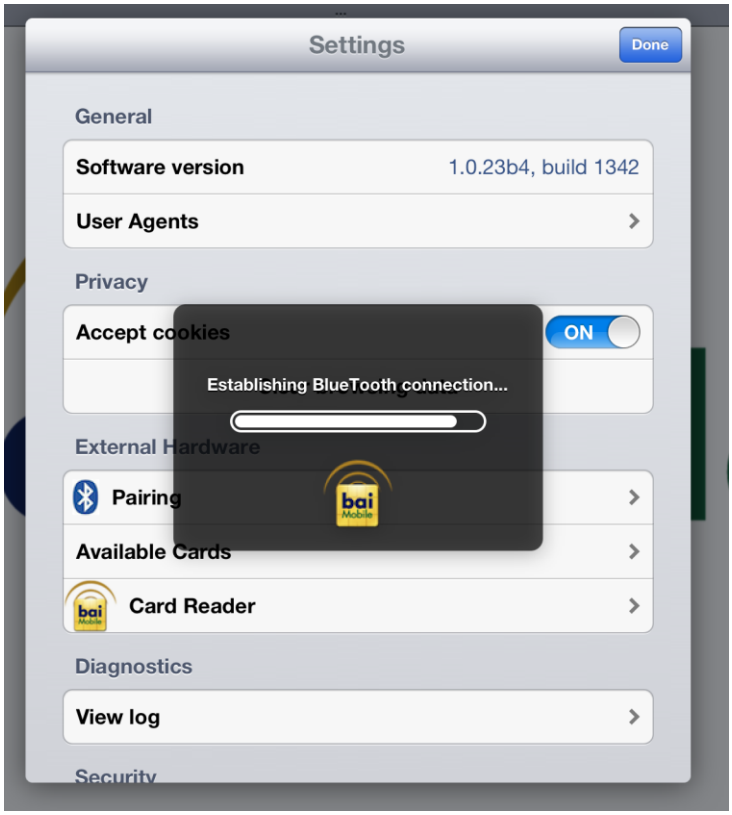
18. Repeat these steps until you have accepted all six numbers on the Reader.

19. Now, press ***Yes, the code matches*** on the iPhone.

Your iPhone w/ baiBrowser ***Your Reader***

20. You will now see the confirmation messages below on your iPhone and your Reader.

21. The baiBrowser app will now establish a Bluetooth connection with the 3000MP Reader.

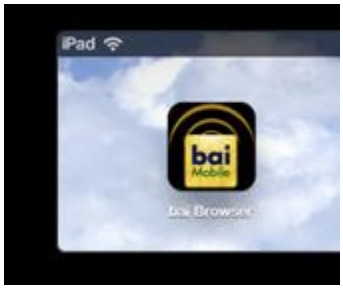


Logging on to a secure web site

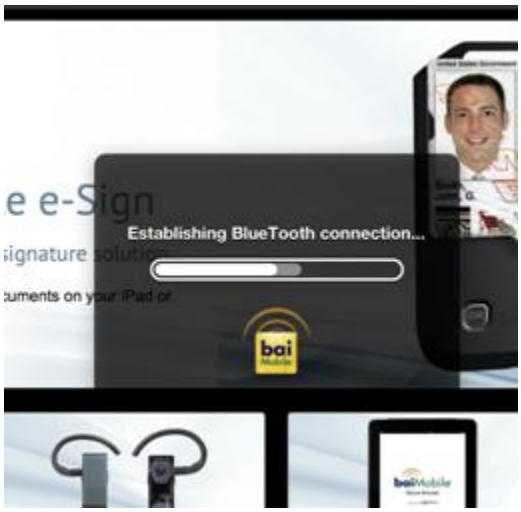
With the baiBrowser and your iPhone or iPad, you should be able to access all of the secure sites (that require smart card authentication) as you can from your desktop.

1. If you have not done so already, pair your baiMobile 3000MP Bluetooth Reader with your BTA001 Bluetooth adapter (see previous section).

2. Open the baiBrowser app by tapping the icon



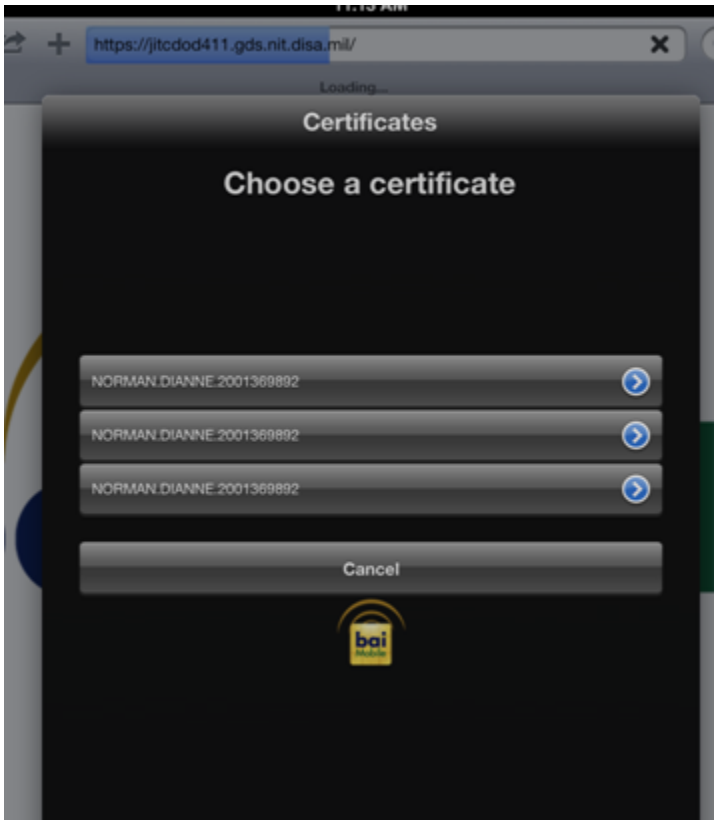
3. Wait while the baiBrowser completes the Bluetooth connection to the Reader.



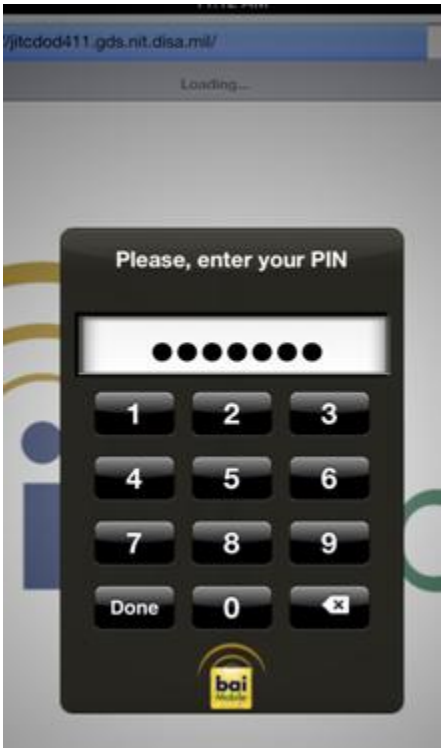
4. Enter the url

5. Make sure that FIPS 140-2 is On, if the site that you are accessing requires it. You should see the following message.

6. Select the proper certificate when presented. For accessing a secure site, it is typically the Authentication certificate.



7. You will then be prompted for your smart card PIN



8. You should now have access to your site.

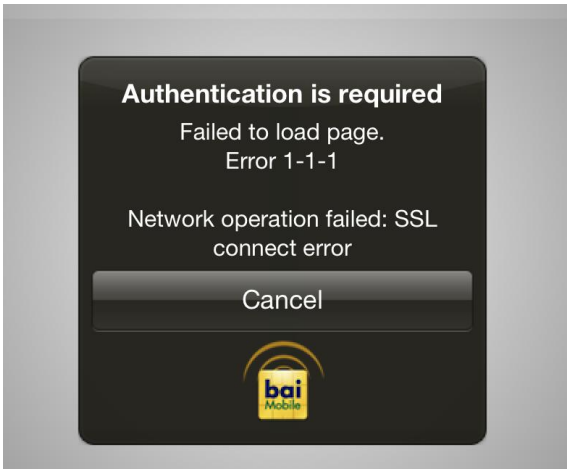
11:13 AM
GDS Query Screen
DoD Global Directory Service
For Official Use Only
First name
https://jitcdod411.gds.nit.disa.mil
WARNING
You are accessing a U.S. Government (USG) Information System (IS) that is provided for USG-authorized use only.
By using this IS (which includes any device attached to this IS), you consent to the following
OK

Error Messages

First, make sure that both your iPhone and Reader are fully charged. Both the iPhone and the reader have defined periods of discoverability. These "windows" of discoverability are about 10 seconds on the iPhone and about 90 seconds on the Reader. If either of the discovery windows time out before the devices discover each other, pairing will fail and the process must be restarted.

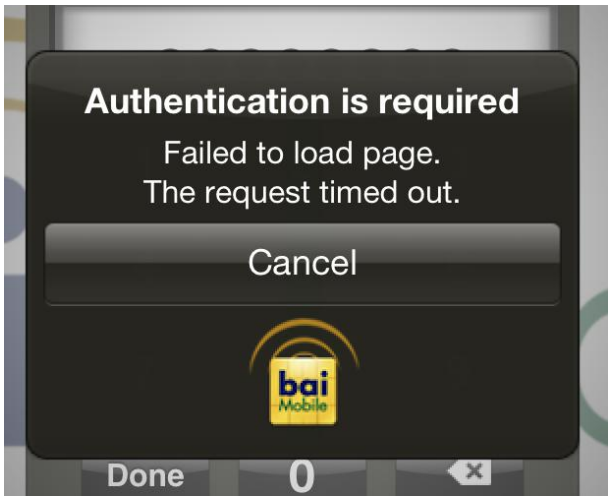
SSL Connect Error

An SSL connection was not established between the baiBrowser and the server, within the time period allowed by the server. This is caused by network issues or other causes. As a precaution, make sure that the FIPS 140-2 testing is ON in the Settings menu. Then, turn to OFF, then back to ON. Close the Settings menu and re-try authenticating to the secure site.



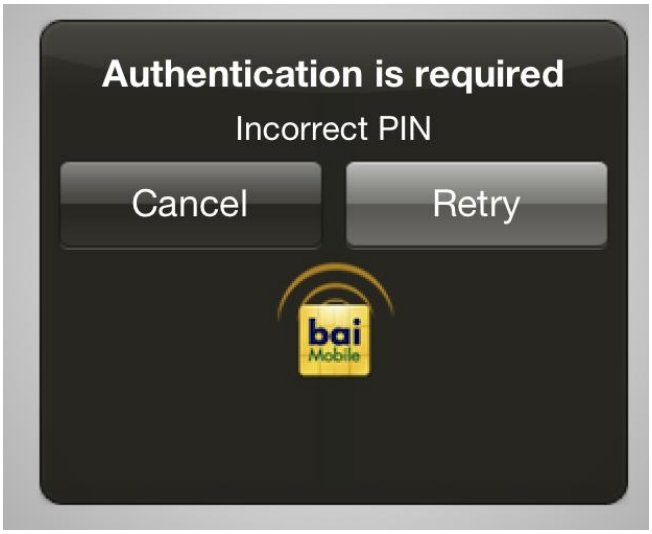
Server Time Out

Most secure servers, that require authentication, have a specified period of time for the user authentication to occur. Retry to connect with the server, but try to enter the PIN without delay.



Incorrect PIN

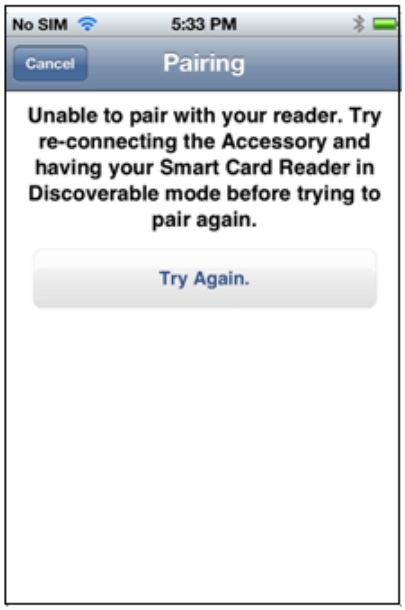
If an incorrect PIN is entered, the following error message will appear. Remember that most smart cards have an internal limit for the maximum number of incorrect PIN entries (usually three) before the card is locked.



Troubleshooting

First, make sure that both your iPhone and Reader are fully charged. Both the iPhone and the reader have defined periods of discoverability. These "windows" of discoverability are about 10 seconds on the iPhone and about 90 seconds on the Reader. If either of the discovery windows time out before the devices discover each other, pairing will fail and the process must be restarted.

If you receive the following message on your iPhone, "Unable to pair with your reader", you will need to repeat steps 1-21.


No SIM
5:33 PM
Cancel
Pairing
Unable to pair with your reader. Try re-connecting the Accessory and having your Smart Card Reader in Discoverable mode before trying to pair again.
Try Again.

If you are unable to get to Step 6, try exiting BaiBrowser, powering off the iOS device. Remove and reinsert the Bluetooth adapter, then power back on. Re-launch BaiBrowser, then repeat Steps 4 through 6 and proceed with Pairing.

PAIRING FAQ

Why do I need the Bluetooth adapter when the iPhone and iPad have built-in Bluetooth?

There are two primary reasons:

- The 3000MP Reader uses the Bluetooth serial port profile to connect to other devices. The iPhone and iPad do not support Bluetooth serial port profile connections.
- NSA and DISA require that all extraneous (unused) Bluetooth profiles be disabled as a security precaution. Since this level of granularity is not available in iOS 4.x for the iPhone's native Bluetooth radio, an external Bluetooth adapter is required for communications with the Smart Card reader.

Can I still use my iPhone's internal Bluetooth radio for connections to other devices, such as a headset?
Check with your network administrator or security officer. The US Department of Defense recommends that the native Bluetooth radio be turned off at all times as a security precaution.

Can I pair my reader to an iPhone or iPad if while the reader is charging?
No.

baiMobile™ Bluetooth Smart Card Reader

Second Edition

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